

ABSTRACT OF THE DISCLOSURE

A DMA controller has a setting register, an operation register, and a setting execution register for storing transfer conditions under which to transfer, by DMA transfer, the transfer conditions for DMA transfer from an external memory to the setting register. The DMA controller also has a multiplexer for alternatively selecting one of the setting register and the setting execution register. The DMA controller further has a controller for performing control so that the selected register is switched alternately between the setting register and the setting execution register every time DMA transfer ends, and a controller for performing control so that, when DMA transfer is started, the data stored in the register selected by the multiplexer is written to the operation register. The DMA controller performs control so that DMA transfer is executed based on the data stored in the operation register.